

REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Office Action mailed on August 30, 2004, and the references cited therewith.

Claims 1, 15, 21, 29, 31-33, 36, 37, and 42 are amended, no claims are canceled, and no claims are added; as a result, claims 1-18 and 20-42 are now pending in this application.

Applicant respectfully submits that the amendments to claims 1, 15, 21, 29, 31-33, 36, 37, and 42 do not introduce any new subject matter and are fully supported by the originally filed specification.

Double Patenting Rejection

Claim 1 was rejected under the judicially created doctrine of double patenting over claim 13 of U.S. Patent No. 6,655,797 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

A Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) is enclosed herewith to overcome these rejections.

§112 Rejection of the Claims

Claims 31 and 36 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 31 and 36 recite the limitation "N". There is insufficient antecedent basis for these limitations in the claims.

Applicant has amended claims 31 and 36 in order to clarify the language therein and not in view of any cited art. Applicant believes the §112 issues have been removed and respectfully requests reconsideration and withdrawal of the §112 rejection for claims 31 and 36, as well as the claims which depend therefrom.

§102 Rejection of the Claims

Claims 1-4, 9-10, 12, 15-18, 20-24, 29, 32-33, 37, 39, 40, and 42 were rejected under 35 USC §102(e) as being anticipated by Kato, et al. (U.S. Patent No. 6,439,708).

Applicant does not admit that the Kato reference is indeed prior art and reserves the right to swear behind the reference at a later date. Nonetheless, Applicant believes the presented claims are distinguishable from the Kato reference for at least the following reasons.

In the office action dated April 27, 2004, the Examiner objected to dependent claim 19 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In a reply to that office action (dated July 2, 2004), the Applicant amended independent claims 1, 15, 21, 29, 32, 33, 37, and 42 to include the allowable subject matter of dependent claim 19.

In the present office action dated, August 30, 2004, the Examiner rejected all the independent claims that included the previously indicated allowable subject matter by reciting, among other things, that in Figure 2 of the Kato reference, the head 1b is half-height the height of the whole head.

The Applicant traverses the rejections. The Applicant respectfully submits that the Kato reference does not describe a fixer and an overcoat printhead that is half-height relative to a full-height ink printhead.

The Kato reference appears to describe a single printhead, e.g., recording head. (See Col. 19, line 5, and Figure 2 of the Kato reference). The recording head appears to describe two nozzle faces that are equal in size. Thus, the printhead appears to be divided into halves of equally sized nozzle faces. The first nozzle face ejects a first fluid, and the second nozzle face ejects colored ink compositions. In other words, the Kato reference appears to describe a first nozzle face, which ejects the first fluid, that is not half the height of the nozzle face that ejects the ink compositions; rather they appear to be equal in height.

In contrast, Applicant's independent claim 1 recites, in part:

wherein the fixer and overcoat printheads are half-height relative to the at least one ink printhead.

Applicant's independent claim 15, recites, in part:

wherein the fixer and overcoat printheads are half-height relative to the at least one inkjet printhead.

Applicant's independent claim 21 recites:

Apparatus comprising a processor programmed to generate swath data for a full-height ink printhead, a half-height fixer printhead, and a half-height overcoat printhead such that the swath data causes ink printhead to deposit drops of a colored ink, the fixer printhead deposits drops of a fixer onto the colored ink, and the overcoat printhead deposits drops of an overcoat onto the colored ink, and advancing the print medium by a distance half-height of the full-height ink printhead

Applicant's independent claim 29 recites:

A program for causing a processor to generate swath data for printer including full-height ink, and first and second half-height protective coating printheads, the first and second half-height protective coating printheads containing fluids that, when in contact, form a protective coating, each half-height printhead having a plurality of separate ink ejection elements, the program instructing the processor to generate swath data only for a subset number of ink ejection elements in each half-height printhead so that ink is deposited and the fixer and overcoat are deposited on the ink.

Applicant's independent claim 32 recites, in part:

instructions encoded in the memory to cause the processor to send swath data to full-height ink, half-height fixer and half-height overcoat printheads.

Applicant's independent claim 33 recites, in part:

wherein the fixer and overcoat printheads are half-height relative to the at least one ink printhead, and advancing the print medium by a distance half-height of the full-height ink printhead.

Applicant's independent claim 37 recites, in part:

depositing drops of an overcoat onto the deposited drops of the colored ink; the drops of fixer and the drops of overcoat deposited from a fixer printhead and an overcoat printhead which are half-height relative to a printhead depositing the drops of colored ink onto the medium; the overcoat and fixer reacting to form a protective coating for the ink; and wherein the medium is advanced a distance half the height of the printhead depositing the drops of colored ink.

and

Applicant's independent claim 42 recites, in part:

instructions encoded in the memory to cause the processor to control ink ejection elements to deposit drops of a colored ink from an ink printhead on a medium, and deposit drops of a fixer and an overcoat onto the deposited drops of the colored ink from a fixer printhead and an overcoat printhead that are half-height relative to the at least one ink printhead.

The Kato reference does not describe two separate printheads that are half-height relative to an ink printhead, which is full-height, among other things. The Applicant respectfully submits that the half-height fixer and overcoat printheads recited in the Applicant's independent claims are not described in the Kato reference.

As noted above, the Kato reference appears to describe a single printhead which is divided into equal halves. Each half includes a nozzle face plate. And, each nozzle face plate is equal in size. Thus, since the nozzle face plate that ejects the first fluid is the same size as the nozzle face plate that ejects ink, the nozzle face plate that ejects the first fluid is not half the height of the nozzle face plate that ejects the ink compositions.

As such, the Applicant respectfully submits that the Kato reference does not include each and every element and limitation of independent claims 1, 15, 21, 29, 32, 33, 37, and 42, as amended. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §102 rejections for these independent claims, as well as those claims which depend therefrom.

Additionally, the Examiner noted that because claims 21, 29, 32, 33, 37, and 42 are method of using apparatus claims, the limitation "wherein the fixer and overcoat printheads are half-height" does not contribute to the steps in the process. Thus, the limitation is considered but not given patentability weight."

Applicant has amended the method of using apparatus claims in order to clarify the language therein and not in view of any cited art.

§103 Rejection of the Claims

Claim 13 was rejected under 35 USC §103(a) as being unpatentable over Kato, et al. (U.S. Patent No. 6,439,708) in view of Otsuki (U.S. Patent No. 6,145,961). Claim 13 is dependent upon claim 1 and, for the reasons provided

above, Applicant respectfully submits that the Kato reference does not teach all the elements and limitations of Applicant's independent claim 1, as amended.

Accordingly, since claim 13 depends from independent claim 1, Applicant asserts that claim 13 is deemed allowable with respect to the Kato reference upon the basis discussed above.

The Otsuki reference fails to cure the deficiencies of the Kato reference. The Otsuki reference appears to describe ink jet heads, each head having a plurality of nozzles that can eject ink of varying colors. For example, the Otsuki reference appears to describe an ink jet head that can eject cyan and magenta colored ink. (See Col. 4, lines 16-20). The Otsuki reference does not suggest "wherein the fixer and overcoat printheads are half-height relative to the at least one ink printhead" as recited in Applicant's independent claim 1. Accordingly, since each and every element and limitation is not taught or suggested in the Kato and Otsuki references, either separately or in combination, Applicant asserts that claim 13 is deemed allowable.

Claim 11 was rejected under 35 USC §103(a) as being unpatentable over Kato, et al. (U.S. Patent No. 6,439,708) in view of Yasunori (JP 11277724 A).

For the reasons provided above, Applicant respectfully submits that the Kato reference does not teach all the elements and limitations of Applicant's independent claim 1, as amended. Since claim 11 depends from independent claim 1, Applicant asserts that claim 11 is deemed allowable with respect to the Kato reference upon the basis discussed above. The Yasunori reference fails to cure the deficiencies of the Kato reference. The Yasunori reference appears to describe an ink printhead used for printing on metal. The ink printhead includes a coating agent which is used to prevent the ink ejected onto the metal from peeling off. The Yasunori reference does not suggest "wherein the fixer and overcoat printheads are half-height relative to the at least one ink printhead" as recited in Applicant's independent claim 1.

Accordingly, since each and every element and limitation is not taught or suggested in the Kato and Yasunori references, either separately or in combination, Applicant asserts that claim 11 is deemed allowable.

Claims 5-6, 14, 25-27, 30, 34-35, 38, and 41 were rejected under 35 USC §103(a) as being unpatentable over Kato, et al. (U.S. Patent No. 6,439,708) in view of Moriyama, et al. (U.S. Patent No. 6,412,934).

For the reasons provided above, Applicant respectfully submits that the Kato reference does not teach all the elements and limitations of Applicant's independent claims 1, 21, 29, 33, and 37 as amended. Since claims 5-6 and 14 depend from claim 1, claims 25-27 depend from claim 21, claim 30 depends from claim 29, claims 34-35 depend from claim 33, and claims 38 and 41 depend from claim 37, the Applicant asserts that those claims are allowable with respect to the Kato reference upon the basis discussed above.

The Moriyama reference fails to cure the deficiencies of the Kato reference. The Moriyama reference appears to describe an ink printing system that deposits a fixer liquid in addition to colored ink to improve the quality of an image on print medium. The Moriyama reference does not suggest a full height printhead for ejecting colored ink and half-height printheads relative to the full-height printheads for ejecting fixer and overcoat, as described in independent claims 1, 21, 29, 33, and 37.

Accordingly, since each and every element and limitation is not taught or suggested in the Kato and Moriyama references, either separately or in combination, Applicant asserts that claims 5-6, 14, 25-27, 30, 34-35, 38, and 41 are deemed allowable.

Claim 34 was rejected under 35 USC §103(a) as being unpatentable over Kato, et al. (U.S. Patent No. 6,439,708) in view of Allen (U.S. Patent No. 5,635,969).

For the reasons provided above, Applicant respectfully submits that the Kato reference does not teach all the elements and limitations of Applicant's independent claim 33, as amended. Since claim 34 depends from independent claim 33, Applicant asserts that claim 34 is deemed allowable with regard to the Kato reference upon the basis discussed above.

The Allen reference fails to cure the deficiencies of the Kato reference. The Allen reference appears to describe a printing system that uses a printhead to eject a conditioning fluid on the print media before the ejection of colored ink. The conditioning fluid helps to prevent cockle and curl of the paper.

The Allen reference does not suggest "wherein the fixer and overcoat printheads are half-height relative to the at least one ink printhead, and advancing the print medium by a distance half-height of the full-height ink printhead" as recited in Applicant's independent claim 33.

Accordingly, since each and every element and limitation is not taught or suggested in the Kato and Allen references, either separately or in combination, Applicant asserts that claim 34 is deemed allowable.

Allowable Subject Matter

Claims 7, 8, and 28 were objected to as being dependent upon a rejected base claims, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant thanks the Examiner for allowing claims 7, 8, and 28.

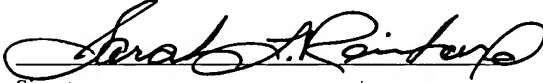
CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (360) 212-0769 to facilitate prosecution of this matter.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

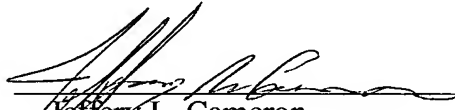
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